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| 10/657,864 | 09/09/2003 | David J. Houck | Houck 5-2-1-3 (LCNT/12569) | 2071 |
| 46363 7590 05/17/2007 PATTERSON & SHERIDAN, LLP/ LUCENT TECHNOLOGIES, INC 595 SHREWSBURY AVENUE SHREWSBURY, NJ 07702 | | | EXAMINER WU, JIANYE | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | | |
|------------------------------|------------------------|--|---------------------|--|
| Office Action Summary | Application No. | | Applicant(s) | |
| | 10/657,864 | | HOUCK ET AL. | |
| | Examiner | | Art Unit | |
| | Jianye Wu | | 2609 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>9/29/03</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1-9** are rejected under 35 U.S.C. 102(b) as being anticipated by H. Schulzrinne et al. IETF RFC 3550 "RTP: A Transport Protocol for Real-Time Applications", July, 2003 (hereinafter **RFC 3550**).

For **claim 1**, RFC 3550 discloses a method, comprising the steps of:

(a) obtaining information (packet loss, Line 1 of the paragraph for "Sequence number: 16 bits", Page 14) relevant to the quality of service of voice calls being transmitted from a first location to a second location via an IP network (RTCP sender and receiver, bullet 3 of Page 17);

(b) calculating a parameter (packet loss ratio, Line 1 of last paragraph of Page 43) based on said information; and

(c) accepting a new call into the IP network in the case of said parameter not exceeding an upper threshold (Line 2 of 3rd paragraph, Page 44, where

packet loss is related to congestion, which in turn inherently implies that new call should be accepted if congestion is manageable).

As to **claim 2**, RFC 3550 discloses the method of claim 1 wherein said new call may be accepted at a reduced bandwidth in the case of said parameter exceeding a lower threshold (Line 2 of 3rd paragraph, Page 44, where packet loss is related to congestion, which in turn inherently implies that new call should be accepted if there is no serious congestion on network);

As to **claim 3**, RFC 3550 discloses the method of claim 1 where said new call is not accepted into the IP network in the case of said parameter exceeding the upper threshold (Line 2 of 3rd paragraph, Page 44, where packet loss is related to congestion, which in turn inherently implies that no new calls should be accepted if upper threshold is reached in order not to make congestion worsen).

As to **claim 4**, RFC 3550 discloses the method of claim 1 wherein the information obtained is a number of lost packets (Line 1 of the paragraph for "Sequence number: 16 bits", Page 14, where lost packets are those with missing sequence number), late packets (Line 1 of the paragraph for "Sequence number: 16 bits", Page 14, where late packets inherently are packets that have been sent, but have not been received according to their sequence numbers) and received packets transmitted from said first location to said second location in the IP network.

As to **claim 5**, RFC 3550 discloses the method of claim 1 wherein the information obtained is a delay (delay, Line 8 of Page 25) of received packets transmitted from said first location to said second location in the IP network.

Art Unit: 2609

As to **claim 6**, RFC 3550 discloses the method of claim 1 wherein the information obtained is a delay variation (variation in the delay, Line 5 of last paragraph in Page 44) of received packets transmitted from said first location to said second location in the IP network.

As to **claim 7**, RFC 3550 discloses the method of claim 1 wherein the information is obtained on a periodic basis (periodic transmission of control packets, first paragraph in Page 19).

As to **claim 8**, RFC 3550 discloses the method of claim 1 wherein the information is obtained on an exception basis using an immediate report (Receiver report, first line of Section 6.4 in Page 35).

As to **claim 9**, RFC 3550 discloses the method of claim 1 wherein the parameter include packet lost ratio (packet lost ratio, Line 1 of 3rd paragraph of Section 6.4.4, Page 43).

3. Claims **14-18** are rejected under 35 U.S.C. 102(e) as being anticipated by Elliott et al (US 20040022237, hereinafter **Elliott**).

For **claim 14**, Elliott discloses an apparatus comprising a gateway (Soft Switch 204, FIG. 2B) for interfacing voice call data from a public switch telephone network to an Internet protocol network; said gateway further comprising:

a first circuit (Ethernet switch 332 of FIG. 3 [0568]) for passing said voice call data to the internet protocol network;

a second circuit (CPU card of Soft Switch 204, FIG. 2B) or polling the internet protocol network about traffic information transmitted therein; and

Art Unit: 2609

a third circuit (CPU of Soft Switch 204, FIG. 2B) for processing the polled information to determine whether the voice call data is to be accepted by the internet protocol network.

As to **claim 15**, Elliott discloses the apparatus of claim 14 wherein said first circuit further comprises one or more Ethernet cards (Ethernet switch 332/334 of FIG. 3 [0568]) that are connected to the Internet protocol network.

As to **claim 16**, Elliott discloses the apparatus of claim 14 wherein said second circuit is at least one strongarm card (CPU card of Soft Switch 204, FIG. 2B).

As to **claim 17**, Elliott discloses the apparatus of claim 16 wherein the strongarm card (CPU card of Soft Switch 204, FIG. 2B) is connected to the Ethernet card via a host CPU circuit.

As to **claim 18**, Elliott discloses the apparatus of claim 14 wherein the third circuit (CPU of Soft Switch 204, FIG. 2B) compares a parameter based on the polled information to a plurality of thresholds.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2609

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over RFC 3550.

As to **claim 10**, RFC 3550 discloses the method of claim 9, but is silent on wherein PLR is defined as

$$PLR = \frac{(\text{lost packets} + \text{late packets})}{(\text{received packets} + \text{lost packets} + \text{late packets})}$$

However, it is well known to any person with ordinary skill in the art that the definition of the PLR is a ratio of the number of packets NOT received to the total number of packets sent for a given period of time; and the number of packets that are not received equal to the sum of the number of lost packets and the number of late packets;

therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to calculate PLR using formula shown above for gaining a better understanding of network performance status.

As to **claim 12**, RFC 3550 discloses the method of claim 2;

Art Unit: 2609

RFC 3550 is **silent on** wherein the bandwidth of a newly accepted call is reduced by increasing the packet size (varied in size, [1075]) for said newly accepted voice call;

however, for a given amount of data, increasing the packet size will decrease the overhead caused by packet header therefore reduce the required bandwidth for the call;

therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to increase the packet size so as to decrease the required bandwidth for the call for the benefit of saving bandwidth resource.

5. **Claims 11 and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over RFC 3550 in view of Elliott.

As to **claim 11**, RFC 3550 discloses the method of claim 2; but is **silent on** using 2 different encoders to process normal bandwidth calls and reduced bandwidths calls;

Elliott discloses using different encoders (CODECs, such as ones supporting G.711, G. 726, and G.728 in [1004]) to handle different connections with different bandwidth ([1004]); which include the case of using 2 different encoders to handle 2 different kinds of calls that have different bandwidth;

Elliott teaches the same kind of the art (IPoV) as what is taught by RFC 3550; therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention for gaining a better understanding of network performance status.

Art Unit: 2609

As to **claim 13**, RFC 3550 discloses the method of claim 2 wherein the bandwidth of a newly accepted call is reduced by activating the characteristic of silence suppression for said newly accepted voice call (silence suppression activation timer, table 147 in Page 85).

6. **Claims 19-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Elliott et al (US 20040022237, hereinafter **Elliott**).

As to **claim 19**, Elliott discloses the method of claim 18, but is silent on wherein PLR is defined as

$$PLR = \frac{(\text{lost packets} + \text{late packets})}{(\text{received packets} + \text{lost packets} + \text{late packets})}$$

However, it is well known to any person with ordinary skill in the art that the definition of the PLR is a ratio of the number of packets NOT received to the total number of packets sent for a given period of time; and the number of packets that are not received equal to the sum of the number of lost packets and the number of late packets;

therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to calculate PLR using formula shown above for gaining a better understanding of network performance status.

As to **claim 20**, Elliott discloses the apparatus of claim 19 wherein the traffic processing (including new call setup) depends on QoS parameters, including packet loss performance ([1081]);

Art Unit: 2609

Elliott is **silent on** explicitly discloses a new call is accepted if PRL is below a given threshold;

however, PRL is just one commonly used QoS parameter;

therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to a new call is accepted if PRL that is (calculated by the third circuit, CPU) is below a given threshold for the benefit of providing reliable network service for users.

As to **claim 21**, Elliott discloses the apparatus of claim 19 wherein the third circuit compares the packet loss ratio;

Elliott is **silent on** explicitly discloses a new call is accepted using a reduced bandwidth if PRL is between given low threshold and the upper threshold;

however, PRL is commonly used QoS parameter ([1081]); and Elliott also teaches providing different network services depend on QoS parameters, such as delay and packet loss information ([1088]);

therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to a new call is accepted using a reduced bandwidth if PRL that is (calculated by the third circuit, CPU) is between given low threshold and the upper threshold for the benefit of providing reliable network service for users.

As to **claim 22**, Elliott discloses the apparatus of claim 19 wherein the third circuit compares the packet loss ratio;

Art Unit: 2609

Elliott is **silent on** explicitly discloses a new call is accepted if PRL is below a given threshold;

however, PRL is commonly used QoS parameter ([1081]);

therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to a new call is blocked if PRL that is (calculated by the third circuit, CPU) is above the upper threshold for the benefit of protecting normal network operation.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jianye Wu whose telephone number is (571)270-1665. The examiner can normally be reached on Monday to Friday, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eliseo Ramos-Feliciano can be reached on (571)272-7925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-

Art Unit: 2609

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Representative or access to the automated information system, call 800-786-

9199 (IN USA OR CANADA) or 571-272-1000.

Lane L
5-10-07

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PRIMARY EXAMINER